

WHAT IS CLAIMED IS:

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1. A mobile communication control system including at least one mobile station and at least one base station, said mobile communication control system comprising:

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a first part measuring traffic of radio channels in one or both of said at least one mobile station and said at least one base station;

a second part measuring a communications quality of radio channels in use; and

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a third part determining a transmit power on a transmitting side and an information transmission bit rate on the basis of the traffic of the radio channels in use and information as to whether the transmit power on the transmitting side has reached a maximum transmit power.

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2. The mobile communications control system as claimed in claim 1, wherein the transmit power on the transmitting side is retained in case where the traffic of the radio channels in use is high so that the communications quality of the radio channels in use is degraded.

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3. The mobile communications control system as claimed in claim 1, further comprising a fourth part decreasing the information transmission bit rate to thereby improve the communications quality, wherein the  
5 fourth part decreases the information transmission bit rate when the traffic of the radio channels in use is high and the communications quality of the radio channels in use is degraded, whereby a given communications quality can be ensured.

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4. The mobile communications control system as  
15 claimed in claim 1, further comprising a fourth part decreasing the information transmission bit rate to thereby improve the communications quality, wherein the fourth part decreases the information transmission bit rate when the maximum transmit power is selected in the  
20 radio channels in use, nevertheless the communications quality thereof is degraded, whereby a given communications quality can be ensured.

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5. The mobile communications control system as claimed in claim 3, wherein the fourth part increases a spreading gain in CDMA (Code Division Multiple Access).

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6. The mobile communications control system as claimed in claim 4, wherein the fourth part increases a spreading gain in CDMA.

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7. The mobile communications control system as claimed in claim 3, wherein the fourth part transmits an identical information bit a plurality of times, a received signal being reproduced from identical information bits separately received.

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8. The mobile communications control system as claimed in claim 4, wherein the fourth part transmits an identical information bit a plurality of times, a received signal being reproduced from identical information bits separately received.

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9. The mobile communications control system as claimed in claim 3, wherein the fourth part transmits an identical packet a plurality of times, a received signal being reproduced from identical packets separately received.

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10. The mobile communications control system as claimed in claim 4, wherein the fourth part transmits an identical packet a plurality of times, a received signal being reproduced from identical packets separately  
5 received.

10 11. The mobile communications control system as claimed in claim 2, wherein the traffic of the radio channels in use is recognized to be high when the received level of the radio channels in use is higher than a predetermined threshold level.

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12. The mobile communications control system as  
20 claimed in claim 3, wherein the traffic of the radio channels in use is recognized to be high when the received level of the radio channels in use is higher than a predetermined threshold level.

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13. The mobile communications system as claimed in claim 2, wherein the communications quality of the  
30 radio channels in use is determined to be degraded when a received CIR (Carrier Interference Ratio) of a signal transmitted over a radio channel is lower than a predetermined received CIR defined at the information

transmission bit rate.

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14. The mobile communications system as claimed in claim 3, wherein the communications quality of the radio channels in use is determined to be degraded when a received CIR (Carrier Interference Ratio) of a signal transmitted over a radio channel is lower than a predetermined received CIR defined at the information transmission bit rate.

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15. The mobile communications system as claimed in claim 5, wherein the communications quality of the radio channels in use is determined to be degraded when a received CIR (Carrier Interference Ratio) of a signal transmitted over a radio channel is lower than a predetermined received CIR defined at the information transmission bit rate.

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16. The mobile communications system as claimed in claim 6, wherein the communications quality of the radio channels in use is determined to be degraded when a received CIR (Carrier Interference Ratio) of a signal transmitted over a radio channel is lower than a predetermined received CIR defined at the information

transmission bit rate.

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17. A base station in a mobile communications system, comprising:

- a received level measuring circuit measuring a received level of radio channels in use in order to recognize a traffic of the radio channels;
- a received CIR (Carrier Interference Ratio) measuring circuit measuring a received CIR of an associated one of the radio channels in order to measure a communications quality of each of the radio channels; and
- 15 a base station control unit determining a transmit power of a mobile station and an information transmission bit rate on the basis of the traffic of the radio channels in use and information as to whether the transmit power of said mobile station has reached a
- 20 maximum transmit power.

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18. A mobile station in a mobile communications system, comprising:

- a received CIR (Carrier Interference Ratio) measuring circuit measuring a received CIR of one of an associated one of radio channels in use in order to
- 30 measure a communications quality of said radio channel; and
- a control unit which controls a transmit power and an information transmission bit rate of the mobile

station in accordance with a control signal regarding the transmit power and the information transmission bit rate sent by a base station and which proposes to the base station that the information transmission bit rate is  
5 reduced on the basis of a traffic of radio channels in use and information as to whether the transmit power of the mobile station has reached to a maximum transmit power.

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19. A mobile communications control method comprising the steps of:

measuring a received level of radio channels in  
15 use in order to recognize a traffic thereof;

measuring a received CIR (Carrier Interference Ratio) of a radio channel in order to measure a communications quality of said radio channel; and

determining a transmit power of a mobile station  
20 and an information transmission bit rate on the basis of the traffic of the radio channels and information as to whether the transmit power of said mobile station has reached a maximum transmit power.

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20. A mobile communications control method comprising the steps of:

30 measuring a received CIR (Carrier Interference Ratio) of a radio channel in use in order to measure a communications quality of said radio channel; and

controlling a transmit power of the mobile

station and an information transmission bit rate in accordance with a control signal regarding the transmit power and the information transmission bit rate sent by a base station; and

- 5                   proposing to the base station that the information transmission bit rate is changed on the basis of a traffic of radio channels in use and information as to whether the transmit power of the mobile station has reached to a maximum transmit power.

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